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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,423	07/02/2003	Richard O. Moore JR.	005950-776	5140

7590

10/18/2006

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

P.O. Box 1404

Alexandria, VA 22313-1404

EXAMINER

NGUYEN, TAM M

ART UNIT

PAPER NUMBER

1764

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,423

Applicant(s)

MOORE ET AL.

Examiner

Tam M. Nguyen

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 5-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 5-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The rejection of claims 1, 2, and 5-19 under 35 USC § 112 is withdrawn by the examiner in view of the amendment filed on July 31, 2006.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, and 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackerman (US 5,527,473).

The Ackerman reference discloses a process in which a product stream from an F-T process, which would necessarily contain C3+ hydrocarbons, is filtered to remove contamination. The filter can be designed to remove contaminants (i.e., catalysts) that range in size between 0.5 and 100 microns. It is the examiner's position that the claimed conventional pressure filter does not distinguish over the filter of Ackerman. The Ackerman reference then discloses that the filtered stream is passed to a fractionator (i.e., distillation column) from which multiple streams are recovered. One or more of these streams may be recycled. Since the stream passed to the fractionator in the Ackerman process is the same as in the claimed process (i.e., a filtered F-T product), the contaminants would necessarily be concentrated in the bottom stream recovered from the fractionator. See column 3, lines 43-60; column 4, lines 5-18; column 9, lines 11-33; and Figure 10.

The Ackerman reference does not disclose volume percent of fractions, the percent of contamination isolated in the bottom fraction, and boiling ranges for the fractions.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Ackerman by adjusting distillation conditions to produce products of desired purity and composition.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ackerman (US 5,527,473) as applied to claim 1 above, and further in view of Brennan et al. (US 4,605,678).

As discussed above, the Ackerman reference does not disclose the hydroprocessing of a distillate product.

The Brennan reference discloses a process for removing catalyst fines from a F-T product. The process comprises passing the product through a filter to remove the fines. Brennan

Art Unit: 1764

also discloses that the product may be further upgraded by hydrotreating. See column 5, lines 46-68.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Ackerman by further hydrotreating a distillate product as suggested by Brennan because an upgraded product will result.

Claims 13, 14, 16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackerman (US 5,527,473) as applied to claim 1 above, and further in view of Kolling et al. (US 2,852,546).

The Ackerman reference does not disclose the claimed first and second distillation steps.

As discussed above, the Kolling reference discloses the distillation of the product from an F-T process. The process comprises two-stage distillation with the second stage being operated under reduced pressure (i.e., vacuum distillation). See column 2, lines 24-46.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Ackerman by distilling as suggested by Kolling because several distillates may be obtained.

Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackerman (US 5,527,473) in view of Kolling et al. (US 2,852,546) as applied to claim 13 above, and further in view of Brennan et al. (US 4,605,678).

The previously discussed references do not disclose hydroprocessing a distillate product.

The Brennan reference discloses a process for removing catalyst fines from a F-T product. The process comprises passing the product through a filter to remove the fines. Brennan

Art Unit: 1764

also discloses that the product may be further upgraded by hydrotreating. See column 5, lines 46-68.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Ackerman as modified by Kolling by further hydrotreating any distillate product as suggested by Brennan because upgraded products will result.

Response to Arguments

The argument that the wire filter element of Ackerman is not a conventional filter is not persuasive because the limitation "a conventional filter" would include any known filter including the filter of Ackerman.

The argument that Ackerman does not disclose or suggest distilling to remove contamination present as soluble species or as ultra-fine particulate nor does Ackerman disclose or suggest that the bottom fraction is less than about 35 percent by volume of the filtered hydrocarbon stream is not persuasive. Since the feedstock of Ackerman is similar to the claimed feed, it would be expected that the filtered hydrocarbon stream of Ackerman would comprise soluble species or ultra-fine particulate as claimed. In addition, the filtered hydrocarbon stream passed to the fractionator in the Ackerman process is the same as in the claimed process (i.e., a filtered F-T product), the contaminants would necessarily be concentrated in the bottom stream recovered from the fractionator. Also, the examiner maintains that it would have been obvious to one having ordinary skill to have modified the process of Ackerman by adjusting distillation conditions to produce products of desired purity and composition.

The argument that Kolling discloses an atmospheric distillation followed by a vacuum distillation followed by a vacuum distillation as a separation technique to provide desired Fischer-Tropsch products, not to remove contamination is not persuasive. The examiner relied upon Kolling to teach the distillation of the product from an F-T process which comprises two-stage distillation with the second stage being operated under reduced pressure (i.e., vacuum distillation) is known in the art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam M. Nguyen whose telephone number is (571) 272-1452. The examiner can normally be reached on Monday through Thursday.

Art Unit: 1764

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tam M. Nguyen
Examiner
Art Unit 1764

TN

